UNITED STATES-MEXICO
COMMUNITY HEALTH WORKERS
BORDER MODELS OF EXCELLENCE

Transfer/Replication
Strategy

PROJECT DULCE™
DIABETES EXCELLENCE ACROSS COMMUNITIES
Community Health Improvement Partners (CHIP)
The Whittier Institute for Diabetes
Council of Community Clinics

Project Dulce Model
County of San Diego, California

2004
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Dear Colleague:

Project Dulce is extremely proud to be honored as a 2003 Border Model of Excellence by the US-Mexico Border Health Commission. We share common goals of improving the health of the populations living in the Border Region, and welcome the opportunity to work with other organizations that share our mission.

Project Dulce's focus is to provide clinical care and self-management training to individuals with diabetes. Our model uses diabetes nurse educators and trained promotoras (peer educators) to achieve our goals. Project Dulce has become the model of care used by the County of San Diego for its indigent adult patients; and is also operating in community health centers and university ambulatory care sites throughout San Diego County. Our model has consistently documented improvements in the health status of its participants.

Project Dulce's promotoras are a critical element of our program. People with diabetes who have community health worker-attributes are trained through a competency-based diabetes peer educator training program that takes from four to six months to complete. Our promotoras are then certified by Project Dulce to provide diabetes self-management education using an 8 week curriculum. The classes are participatory, skill-based, and interactive. Participants work together to address health care barriers that exist by virtue of their culture, language, or economic status. Our promotoras are an integral part of the Project Dulce staff, and receive ongoing education in diabetes and in their field.

We are looking forward to sharing Project Dulce with other health centers and communities. We have developed training programs and guides to help others replicate the model. Please contact Chris Walker if you are interested in receiving more information at walker.chris@wscirppshealth.org or 760-471-8093.

Sincerely,

Chris Walker, MPH  
Director, Strategic Initiatives  
Whittier Institute for Diabetes

The Whittier Institute for Diabetes  
9894 Genesee Avenue  
La Jolla, CA 92037

858-626-5663  
FAX: 858-626-5680  
www.whittier.org
Border Models of Excellence Background

The purpose of the Border Models of Excellence initiative is to recognize the community-based health programs and initiatives along the United States - Mexico border that have made great strides in improving the health and well-being of communities along either side of the 2000 mile border. The USMBHC celebrates the accomplishments of these programs through Border Models of Excellence (BMOE).

The primary purpose of this initiative is to:
- Identify best projects and models;
- Build the capacity of existing programs and models that address the focus themes of Healthy Border 2010; and,
- Emphasize and support the transfer and sharing of successful strategies across states and along the U.S. – Mexico border region.

In its first phase, BMOE focused on programs that were using the Community Health Worker (CHW) / promotor(a) approach and that had been in existence for a minimum of 12 months. CHWs/Promotores(as) have played a key role in addressing health issues of border communities. The BMOE initiative commenced its first call for applications in October 2002. Criteria for selection of the winners included the following:
- Having a presence on the United States – Mexico border
- Utilization of CHWs/Promotores(as)
- Being innovative
- Being responsive to community needs
- Possessing outcome capability
- Demonstrating measurable quality improvement
- Being collaborative in nature
- Having the ability to be replicated and sustained
- Demonstrating administrative effectiveness
- Focusing on at least one of the Healthy Border 2010 focus areas

What are Community Health Workers/Promotores(as)?

Community Health Workers (CHWs) are also known as community health advocates, lay health educators, community health representatives, peer health promoters, community health outreach workers, and, in Spanish, promotores de salud. They are community members who work almost exclusively in community settings. They serve as connectors between health care consumers and providers to promote health among groups that have traditionally lacked access to adequate health care.

-A. Witmer, 1995
Community Health Workers (CHWs)/Promotores(as) represent their community’s cultural, linguistic, educational, and economic characteristics. They advocate for their community’s health care and social needs and assist members of their community in accessing health care and social services. As members of their communities, they personally share in the community’s stake to reduce barriers that impact the quality of life.

CHWs/Promotores(as) can be found in a variety of health care and community settings including clinics, hospitals, community centers, churches, agricultural fields, libraries, shelters, and in their own neighborhoods. CHWs/Promotores(as) utilize and build upon their pre-existing relationship with the community being served to connect and empower their peers. This ever-growing cadre of health support workers play many important roles in underserved and uninsured communities. According to the National Community Health Advisor study, among these are the following:

- Bridging cultural mediation between communities and the health and social service systems
- Providing culturally appropriate and accessible health education and information
- Assuring that people get the services they need
- Providing informal counseling and social support
- Advocating for individual and community needs
- Providing direct services
- Building individual and community capacity

Latin America has a long and successful tradition of integrating CHWs/Promotores(as) into the health delivery system. By working bilaterally, expertise and experience can be cross-pollinated on both sides of the United States – Mexico border. It is the Commission’s aim to recognize the critical work that CHWs/Promotores(as) carry out in their border communities and create a network of cooperation, technical support, professional training, and replication services for the organizations and agencies that utilize them.

**Trends in Certification of CHWs/Promotores(as)**

The standardization of CHW/Promotor(a) skills and knowledge is not considered positive by all proponents of the CHW/Promotor(a) model. There is concern that the standardization of skills and knowledge will detract from the abilities of CHWs/Promotores(as) to relate to the community as a member of that community -- the very strength of the CHW/Promotor(a) model. In other words, skills and knowledge that are community-specific are strengths that enable CHWs/Promotores(as) to better identify with and serve their particular community. Many individuals from the community do not have time, finances, or transportation to participate in certification programs that require a significant commitment of time and personal resources.
The certification of CHWs/Promotores(as) is promoted by some as a means for CHWs/Promotores(as) to receive reimbursement for their work. The Texas Department of Health Office of Public Health Promotion implemented a certification program that facilitates achievement of standardized core competencies in communication, interpersonal skills, service coordination, capacity-building, advocacy, teaching, organization, and knowledge-based skills. The certification program aims to assure uniformity and transferability of skills and knowledge among all certified CHWs/Promotores(as). Texas, through the Texas Department of Health, is the first state to implement a standardized certification program for CHWs/Promotores(as).

The state of Arizona has also instituted a CHW/promotor(a) certification program in coordination with the University of Arizona. While in the Legislative Session 2003, New Mexico State Legislators passed the Senate Joint Memorial (076) that tasked the Department of Health to “lead a study on the development of a Community Health advocacy Program in NM. This study estimated that there are approximately 500 CHW's/Promotores (as) providing health related services in NM. On tribal lands there are an estimated 150 CHW's and 150 in the southern border region providing services of Hispanic, Native American, Anglo and other ethnic populations. The CHW's provided Medicaid enrollment, case management, health education, translation, and client advocacy in both urban and rural communities.

Many CHWs/Promotores(as) are paid by their individual programs based on available funding from grants. This reimbursement does not require a certification. Likewise, having a certification would not gain reimbursement for the program if it didn’t have the available finances. Program funding does not depend on CHW/Promotor(a) certification nor does it seem to increase a program’s chances to receive funding.

Profile for Project Dulce

Project Dulce combines peer-led education and support with quality diabetes care to achieve lasting improvements in health status and health-related behaviors among Latinos and other underserved populations in San Diego County, California. Nurse-led teams provide clinical diabetes management while trained peer educators provide diabetes self-management training and support. Access to care is enhanced by the program’s integration with the services of community health centers.

Project Description

Established in 1997, Project Dulce was designed through a dynamic collaborative process between three primary partners, the Whittier Institute for Diabetes, the San Diego Council of Community Clinics, and San Diego Community Health Improvement Partners, along with over 20 community-based groups and healthcare organizations.
Project Dulce’s **vision** is to eliminate disparities in health status by specifically addressing the high prevalence of uncontrolled diabetes among Latinos and other ethnic groups. The **primary goal** is to prevent the devastating health impacts of diabetes by ensuring that the most vulnerable in their communities receive appropriate screening and diagnosis, and are provided the education and ongoing support they need to manage their diabetes. The program addresses cultural, economic, language, and other barriers to care.

**Healthy Border 2010 Focus Area:**
- Diabetes hospitalization and mortality

**Population Served**
It is estimated that there are approximately 172,000 persons with diagnosed diabetes in San Diego, and at least that many have diabetes but have not yet been diagnosed. One-third of those diagnosed with diabetes in San Diego is Latino, and a significant proportion of Latinos in San Diego County reside in the border region.

The devastating complications of diabetes impact Latinos more than other populations because they are uninsured; there is a lack of bilingual/bicultural health providers; and there is a lack of diabetes education programs that address the complex family, social, cultural, linguistic and economic factors that impact Latinos.

Project Dulce focuses on reducing mortality and morbidity from diabetes-related conditions through prevention education and peer support to increase knowledge and facilitate healthy behavior change. Project Dulce was initially designed to address the needs of Latinos, who bear the brunt of the diabetes epidemic. The diabetes epidemic has its most severe impact on ethnic populations, and Latinos get diabetes at 2-3 times the rate of Whites. The latest statistics show that nearly half of all Latino children born in 2000 will get diabetes at some time in their lives. In San Diego, one-third of those diagnosed with diabetes are Latino, and a significant proportion of Latinos in San Diego County reside in the border region. Underserved Latinos continue to comprise the majority of individuals served by Project Dulce.

Diabetes education classes are conducted at each partnering community health center (CHC) and at numerous community sites, such as churches or parks. The education model is adapted to the operating specifications at each clinic site.

**Health Related Outcomes**
Project Dulce has seven years of experience and data to validate the power and effectiveness of the use of the CHW/Promotor(a) model. Project Dulce measures outcomes using three primary methods:
1) Clinical outcomes are measured with the aid of an electronic diabetes registry (DEMS), a stand-alone system that was developed specifically for community health centers with support from the US Public Health Services. Key clinical and demographic information from patient visits with the nurse educator is entered into this system, including lab results, and adherence to ADA standards of care. DEMS enables Project Dulce to report the percent change in lab values over time, the percent of patients who are meeting ADA goals, and the numbers who receive care according to the recommended guidelines, e.g., 2 HbA1cs per year, one retinal exam, etc.

2) A behavior change evaluation is conducted for all participants in Project Dulce classes and in the clinical component. A validated instrument is used (Toolbert and Glasgow) that gathers information from the participant regarding their exercise, nutrition, medication compliance, and glucose monitoring behavior. These tools are administered when the participant enters the program and at 3, 6, and 12 months post enrollment. Results are analyzed on a quarterly basis and provide feedback to the program and its educators regarding the effectiveness of the education content and methods.

3) Knowledge is pre-tested before classes and after the 8-week series to determine the level of learning that has taken place. Pre-tests are also used by the educators to identify areas on which to focus during the classes.

In the pilot project (1998-1999), high-risk patients showed significant improvements in HbA1c, a biological indicator of diabetes control; total cholesterol; systolic blood pressure, and diastolic blood pressure. Pre- and post-test evaluations showed improved diabetes knowledge (p=0.024), treatment satisfaction (p=0.001) and internal locus of control (p=0.04). Compliance was 100% in the Dulce treatment group in obtaining HbA1c, lipids, urine microalbumin, and foot exams, while the controls had 28%, 46%, 31%, and 15%, respectively.

As Dulce has evolved from a research-oriented pilot project to a program that operates throughout San Diego County, clinical and behavioral outcomes continue to be tracked, along with compliance with standards of care. These results are reported to the clinics on a quarterly basis. Evaluation of behavior change also indicates statistically significant improvements in nutrition, exercise, glucose testing, and medication compliance.

The program has demonstrated statistically significant improvements in clinical indicators of diabetes management including reduction in HbA1c and in Total Cholesterol. Below are the results from the pilot.
Selection and Training of Staff

Project Dulce CHWs/Promotores(as) are individuals from the community who have been diagnosed with diabetes. These individuals participate in an intensive 4-6 month training program to become peer diabetes educators. Being peers and representatives of the clients’ communities enables them to have an understanding of diabetes-related problems (e.g., depression, pressure of family, emotional changes of the diabetic and her family) as well as the cultural aspects.
Sustainability and Replicability

Project Dulce is innovative in its service delivery of care at a community health center. Nurses do much of the work of physicians, and promotoras do much of the work of nurse educators. Regular feedback, communication, and problem solving between the Project Dulce team and clinic providers is key to success. Administrative and clinical champions at the implementation site are instrumental in keeping the lines of communication open.

Systematic documentation of outcomes is essential and one of Project Dulce’s best practices. Clinical and behavioral improvements in patient status are constantly recorded.

Project Dulce is designed to be financially self-sustaining in a community health center setting. It can also be sustained in other provider environments, depending upon the reimbursement policies of the primary payers.

Project Dulce’s ability to provide clinical and social support while using forging partnerships with academic experts in the fields of social and behavioral science, organizational psychology, clinical diabetes care, health promotion, biostatistics and epidemiology, and healthcare economics in order to ensure its program employs leading edge strategies and methods to reach its goals may be the secret to its sustainability over the past seven years.

Extensive cultural research, including focus groups and key informant surveys, to adapt curriculum and approach beyond the Latino population to African-Americans, Filipinos, and Vietnamese have been done in order to make Dulce’s strategies and methods applicable in other settings.

- Project Dulce is already being replicated by a network of community health centers in Dade County, Florida (HealthChoice Network). In order to make the program replicable, the following tools have been developed: A diabetes education curriculum for peer-led classes (Diabetes Among Friends);
- Teaching aids and flip charts to accompany the curriculum;
- A CHW/Promotora training manual, which documents the four-phase, competency-based, peer educator training curriculum, and also includes evaluation instruments;
- An operations manual, which documents the program’s operations through process charts, flow sheets, and forms which can be replicated.

Partnerships and Collaborators

Project Dulce was designed by a broad collaboration of over 20 community-based groups and healthcare organizations. Clinical expertise was contributed from the Physician’s Council of the Council of Community Clinics, The Whittier Institute for Diabetes, and UCSD’s Department of Endocrinology, while the health
promotion component was designed with the help of Latino Health Access (a *promotora* program in Orange County), SDSU Graduate School of Public Health, and health promotion specialists at clinics and in the County public health department. Project Dulce also provides services at the ambulatory care sites of the University of California, San Diego School of Medicine.

**Greatest Community Impact**
Since 1997, Project Dulce has expanded to serve over 3000 persons with diabetes at 19 different sites in San Diego: community health centers, hospital-sponsored primary care clinics, and university health system ambulatory care sites.

Project Dulce has also had a tremendous impact on the education and training of its diabetes *promotores/as*. Project Dulce has developed a comprehensive *promotora* training program that provides *promotoras* with training on workplace skills, community resources, health clinic systems, the appropriate role of a peer educator, and the basics of diabetes management. *Promotores* must successfully “graduate” from each of the four levels of training before they can teach on their own. The end result is a trained *promotor/a* who is employed by the project to empower his/her peers. Project Dulce has found that this comprehensive training approach leads to an increase in effectiveness, stability, enthusiasm and commitment on the part of the *promotora* as well as the project’s participants. To date, Project Dulce has trained approximately 20 *promotores/as*.

**Administration**
The fiscal agent for Project Dulce is The Whittier Institute for Diabetes, a 501©(3) public benefit corporation and a subsidiary of Scripps Health. The Whittier Board of Directors is ultimately responsible for the Project. However, the initial partners who developed the Project Dulce program design in 1997 serve on a Project Dulce Board of Advisors and provide, de facto, direction and leadership for the program.

Project Dulce’s Executive Director is accountable for program operations, finance, contracting, and supervision of the program staff and activities. The Medical Director has primary oversight and authority over clinical services, and provides clinical supervision to the diabetes nurse educators.

Currently, Dulce services provided in clinical settings are financed through contractual relationships with the clinics. Clinics are able to bill payers for Dulce services, thereby creating a financially self-sustaining program. The County of San Diego reimburses clinics for Dulce services provided to the medically indigent adult population, and also has a management services contract with Project Dulce to provide program oversight and coordination, quality management, professional education, and data management and reporting.
Roles and Empowerment of CHWs/Promotores(as)
As individuals from the community who have been diagnosed with diabetes, CHWs/Promotores(as) lead groups of patients with diabetes in a way that enhances each other's sense of empowerment and provide “real world” suggestions (or approaches?) to help each other manage their disease.

The CHWs/Promotores(as) serve as peer educators following an intensive 4-6 month training process which certifies them as diabetes peer educators. Modeling positive behaviors, the CHWs/Promotores(as) provide a link between the medical provider and the patient by helping them to navigate the health care system. For example, they facilitate self-care group classes, support groups, and one-to-one assistance with appointment scheduling, pharmacy refills, and the public benefit application process.

During group facilitation, the CHW/Promotores(as) assist patients in helping one another address family, cultural or system barriers to taking control of their disease. Patients become advocates for their own health and the health of their peers. Family members attend classes to provide support, learn the importance of nutrition and exercise, and health behaviors “spread” through the family.

CHWs/Promotores(as) go back to their communities with their glucometers, test their neighbors, and bring them to Project Dulce. The result is a self-sustaining capacity within neighborhoods to manage diabetes on an individual, family and community level.

Lessons Learned and Overcoming Barriers

At Community Level
Financial sustainability is perhaps the single most important consideration when implementing a Project Dulce program. Project Dulce has provided technical assistance to the delivery sites—community health centers and primary care practices—to ensure the program can be financially supported by payer reimbursement.

At Agency Level
Project Dulce is a model that provides care “out of the box” from the ordinary delivery of care at a community health center. Nurses do much of the work of physicians, and promotoras do much of the work of nurse educators. Regular feedback, communication, and problem solving between the Project Dulce team and clinic providers is key to success. Administrative and clinical champions at the implementation site are instrumental in keeping the lines of communication open.

Documentation of outcomes is critical. There are many good programs to help patients manage their diabetes. Project Dulce, however, consistently documents
clinical improvements in patient health status, as well as improvements in health behaviors.

**Questions to keep in Mind**

- What current diabetes education efforts are going on in the community or in adjacent/similar communities? What linkages can be made with these communities?
- What resources are available to provide support to the project and its participants?
- Are there resources available to provide stipends for peer educators as they are trained?
- What is the data collection and management capacity of targeted providers?

**Guidelines for Model Implementation**

Project Dulce has developed the capacity to provide technical assistance, support, and training to communities and health centers that want to replicate its program. The services include:

- An environmental assessment that determines how the program can be financially sustained over time, and assesses the program’s acceptability to the existing diabetes care providers. Project Dulce staff visit the center and make an assessment of its existing systems, staff and programs in order to customize Project Dulce to the local clinic and community environment. The assessment includes:
  
  --Assessment of the strengths and weakness of existing diabetes care services and programs
  --Review of demographics of the service area and patient population
  --Assessment of capabilities of the information system
  --Assessment of capacity and skills of existing staff
  --Identification of program resource requirements

- Adaptation of the program and its operations to the specific community and/or clinical environment where it will be implemented.

- Assistance in designing budgets, staffing plans, patient recruitment and scheduling systems, quality management system, and other operational needs.

- Training for the staff and volunteers who are responsible for implementing the program: nurse educators, dietitians, data managers, peer educators.

  - Key health center staff will visit Project Dulce in San Diego, using the training facilities of the Whittier Institute for Diabetes. A two-day training covers the basics of the program—clinic operations, data system requirements, clinical services, peer educator training, self-
management classes and curriculum, and patient support. Visits to Project Dulce classes, support groups and clinical services at San Diego health centers provide invaluable insight into the workings and impact of the program.

- Project Dulce staff go on-site to the health center(s) to provide 5 days of training for center staff. Training topics include:
  --Nurse-led multidisciplinary diabetes care team approach
  --Promotora recruitment and training
  --Educational curriculum, “Diabetes Among Friends”
  --Data collection and outcomes reporting
  --Clinic operations and support systems
  --Community outreach and participant recruitment

Trainers include a physician (endocrinologist), RN/certified diabetes educator, administrative and data systems specialist, education coordinator, and peer educator.

Clinical training regarding diabetes, the disease process and treatment options, is enhanced through a collaboration with the American Association of Diabetes Educators (AADE), and the International Centers for Diabetes, producers of SDM™--Staged Diabetes Management protocols.

- Access to educational materials to center staff, including training manuals, group education curricula, peer educator training curricula, and educational aides and handouts.

- Ongoing technical assistance and problem-solving support including a series of conference calls and/or video conferencing between the trainers and the center staff.

Approximately 4 months after the program has been implemented at the center, Project Dulce staff travel to the site and review operations, and ensure quality assurance procedures and outcome reporting systems are in place. Additional on site assistance is provided as needed.

Each site is requested to track outcomes using a standard database as recommended by the HRSA Collaboratives (DEMS, PECS). Summary data is collected from replication sites. Compliance reports are generated and returned to the sites. Quality improvement projects will be recommended and technical assistance provided. The projects' outcomes are quantified and aggregated for a national report of results.

In order to assure quality and achievement of positive health outcomes, Project Dulce conducts site reviews on an annual basis.
The site review provides an opportunity to the center’s staff for continuous program improvement, and ensures that the principals of Project Dulce remain intact and quality outcomes are achieved at replication sites.

Project Dulce provides a quarterly videoconference to replication sites for ongoing training related to diabetes management, cultural competency, educational approaches, and program adaptations based on San Diego’s field experience. Sites receive updated Project Dulce materials as they are developed.

Funding/Resource Development
It is often helpful to have seed funding for a year or so to get the project “off the ground”. Each community may have relationships with private and corporate foundations, or pharmaceutical companies, who are willing to provide initial seed funding.

The County of San Diego adopted the Project Dulce model for its indigent adult population because it was able to demonstrate significant clinical and behavioral outcomes. This allowed the program to expand to nearly all of San Diego’s community health centers. Project Dulce currently manages over 2361 patients with diabetes at 11 community clinic sites and 3 University of California at San Diego (UCSD) ambulatory care sites.

Conclusion
Project Dulce has been successfully addressing the high prevalence of uncontrolled diabetes among Latinos and other ethnic groups in the San Diego area for seven consecutive years. The project has developed the capacity to create clinical and behavioral change and assist other entities in the replication of their model.

Contact Information
For more information on Project Dulce, you may contact:
Leticia Lleva, M.P.H.
Manager of Community Outreach and Prevention
The Whittier Institute for Diabetes
9894 Genesee
La Jolla, CA  92037
Phone:  (858) 626-5638
Fax:      (858) 626-5680
E-Mail:  lleva.leticia@scrippshealth.org.

Reference to tools and Additional resources
www.whittier.org